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ABSTRACT

For this study of relations between maternal and paternal discipline, children's playground behavioral orientations and children's peer status, 106 mothers and fathers of preschool-age children were interviewed. The children's playground behavior in child care settings was observed and measures of sociometric status were obtained. Results indicated that children of more inductive mothers were more accepted by peers and exhibited more cooperative play and social conversation, and less arguing, aggression, and rough and tumble play. In comparison to paternal discipline, maternal discipline was found to influence broader aspects of behavior. Additive and joint interactive effects of maternal and paternal discipline were found to carry greater weight than either carried alone. Daughters of more power assertive mothers and more inductive fathers were more rejected by peers. Older preschoolers of more inductive mothers and fathers were more accepted by peers and engaged in more prosocial and less hostile and disruptive playground behavior. In general, maternal and paternal discipline and child behavior made independent contributions to peer status and prosocial aspects of behavior were found to mediate relations between more inductive parenting and older preschoolers' peer status. A total of 48 references are cited. (Author/RH)

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Maternal and Paternal Disciplinary Styles: Relations With Preschoolers' Behavioral Orientations and Sociometric Status

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Abstract

To explore relations between maternal and paternal discipline, children's playground behavioral orientations, and children's peer status, 106 mothers and fathers of preschool-age children (age range = 40-71 months) participated in home disciplinary style interviews. Observations of their children's playground behavior in child care settings and measures of sociometric status were also obtained. Results indicated that children of more inductive mothers were more accepted by peers and exhibited more cooperative play, social conversation, and less arguing, aggression, and rough and tumble play. Although similar findings were obtained for paternal discipline, maternal discipline was found to influence broader aspects of behavior, independent of paternal discipline. Moreover, the additive and joint interactive effects of maternal and paternal discipline were found to carry greater weight than either alone. For instance, daughters of more power assertive mothers and more inductive fathers were more rejected by peers. Also, older preschoolers of more inductive mothers and more inductive fathers were more accepted by peers and engaged in more prosocial and less hostile and disruptive playground behavior. Although maternal and paternal discipline and child behavior were generally found to make independent contributions to peer status, prosocial aspects of behavior were found to mediate relations between more inductive parenting on the part of both parents and older preschooler's peer status.

MATERNAL AND PATERNAL DISCIPLINARY STYLES: RELATIONS WITH PRESCHOOLERS' BEHAVIORAL ORIENTATIONS AND SOCIOMETRIC STATUS

Putallaz (1989) recently proposed a model describing linkages between family and peer systems. As part of this model, several ways are suggested by which parents directly influence their children's behavior and subsequent competence with peers through coaching, modeling and conditioning processes. In a broad sense, researchers have identified three major types of disciplinary styles that could conceivably tie into this model. These are generally referred to as "induction" "power assertion" and "permissiveness" (e.g., Brody & Shaffer, 1982; Hoffman, 1977; Maccoby & Martin, 1983). For instance, as Burleson (1983) has pointed out, parents who use more inductively oriented disciplinary styles coach children by introducing claims and consequences and then supplying rationales that support them. This is done by limit setting, reasoning, explaining, and eliciting ideas from the child rather than by focusing upon coercive means to regulate behaviors. Power assertive disciplinary styles, on the other hand (e.g., physical punishment, threats, belittling) may serve to model aversive behavior as an efficacious means of resolving interpersonal issues with others. Operant conditioning may work through power assertion or permissiveness as parents reward what they view as socially desirable behavior or ignore socially inappropriate behavior in their children.

Results of past research primarily involving mothers have indicated that power assertive discipline is associated with child expectations of successful outcomes for hostile behavior and more aggressive interactions with and rejection by peers (e.g., Becker, Peterson, Luria, Shoemaker, & Hellner, 1962; Hart, Ladd, & Burleson, 1990; Sears, Whiting, Nowlis & Sears, 1953; Sears, Maccoby, & Levin, 1957). Conversely, inductive discipline is related to greater self control, positive interactions with, and popularity with peers (e.g., Hart, et. al., 1990; Maccoby & Martin, 1983). Permissive parenting has been associated with more impulsive and aggressive behavior with peers (e.g., Baumrind, 1967; Maccoby & Martin, 1983; Sears, 1961). However, few studies have simultaneously explored relations between inductive, power assertive, and permissive parental disciplinary styles (both mother and father), behavioral orientations that have been demonstrated to be related to peer competence, and children's peer status. For instance, recent research has demonstrated that higher levels of cooperative play and social conversation make significant positive contributions to peer status. However, arguing, aggression, and rough play are negatively related to peer status in preschoolers (see Ladd & Price, 1987; Ladd, Price & Hart, 1988; in press). Little is known about ways that these specific behaviors are related to both maternal and paternal disciplinary styles and competence with peers.

Most literature exploring father discipline has focused on relations with children's aggression and sex role development. However, many of these studies have been limited by reliance on mother and/or child interviews (e.g., Clifford, 1959; Kagan, 1958; Mussen & Distler, 1960; Siegelman, 1966) and have not explored relations with children's peer status. Other similar work has depended on retrospections of male college students (Moulton, Bernstein, Liberty, & Altucher, 1966). Additional studies involving sex role development have explored relations between paternal nurturance and peer competence. These studies suggest that boys of fathers who are warm and nurturant and exhibit masculine sex-appropriate behavior are more popular with their peers (see Biller, 1981).

Although the results of several studies have documented relationships between maternal disciplinary and/or interactive styles and children's peer status (e.g., Hart, et al., 1990; Marshall, 1961; Putallaz, 1987), few studies have examined the relative contribution of maternal and paternal disciplinary styles to both children's behavior and acceptance by peers. Studies exploring child behavior in relation to maternal and paternal discipline include Baumrind's (1971) well cited work in which maternal and paternal disciplinary styles were collapsed into typologies. Also, Eron, Walder, Toigo, & Lefkowitz (1963) explored the effects of parental punishment by interviewing both fathers and mothers. Results indicated fathers (as well as mothers) who used more punishment had boys and girls who were perceived by peers as being more aggressive. Similar findings were obtained by Feshbach (1974).

The most comprehensive study to date exploring relations between maternal and paternal discipline, preschooler's behavior, and peer status (based on positive nominations only) was conducted by Marshall (1961). Using a punitive control scale of a child-rearing opinion survey, Marshall (1961) found that preschooler's hostile interaction behavior with peers was influenced by harsh, punitive control of parents who were the same sex as the child. Although maternal and paternal punitiveness was negatively related to peer acceptance for girls, paternal punitive control ratings were positively associated with peer acceptance for boys. Contrary to findings of more recent research, boys but not girls, who engaged in hostile behavior were more accepted by peers. Although this research is illuminating, still lacking are studies documenting the effects of paternal induction, power assertion, and permissiveness on observed prosocial (i.e., cooperative play, social conversation) as well as observed antisocial, disruptive play behaviors (i.e., aggression, arguing, rough and tumble play) that have been shown in recent research with preschoolers to be related to peer status. Moreover, little is known about the relative contribution of maternal and paternal discipline to these behaviors and whether these behaviors are mediators of discipline and peer status.

The purpose of this study was to explore relations between maternal and paternal inductive, power assertive, and permissive discipline, children's interactive behavioral orientations, and children's competence with peers in child care playground settings. The primary objectives were to investigate (a) relations between maternal and paternal discipline and preschooler's behavioral orientations (b) relations between maternal and paternal discipline and preschooler's peer status (c) relations between preschooler's behavioral orientations and peer status (d) the relative contributions of maternal and paternal discipline to behavioral orientations and peer status and (e) whether children's behavioral orientations mediate relations between parental discipline and peer status.

In light of past research indicating that both mother and father discipline may have similar impact on children's behavior in the peer group (e.g., Baumrind, 1971; Eron, et al., 1963), we anticipated that children of more inductive and less power assertive mothers and fathers would exhibit more prosocial (e.g., cooperative play, social conversation) and less antisocial (e.g., aggression, arguing) and disruptive (i.e., rough and tumble) playground behaviors.

Despite earlier findings indicating positive relations between paternal power assertion, child hostility, and peer acceptance for boys (Marshall, 1961), we expected maternal and paternal power assertion to be negatively related to peer status for both boys and girls. This prediction was based on earlier cited evidence suggesting a positive relation between maternal and paternal power assertion and hostile interactions with peers. Moreover, contrary to results of the Marshall (1961) study, recent research with preschoolers suggests child hostility toward peers is consistently related to peer rejection for children of both sexes (see Ladd & Price, 1987; Ladd, et al., 1988; in press). It was also anticipated that children who were more prosocial and less aggressive and disruptive would be more accepted by peers (cf. Ladd & Price, 1987; Ladd et al., 1987; 1988; in press). Further, we expected permissive parenting to predict more aggressive and disruptive behavior and less acceptance by peers since prior research indicates children of these parents are more impulsive and aggressive (e.g., Baumrind, 1967).

Although past research suggests fathers and mothers influence children in similar rather than dissimilar ways (see Lamb & Oppenheim, 1989), we hypothesized that the relative effects of discipline on behavior and peer status would be stronger for mothers than fathers. This prediction was based on studies indicating fathers (relative to mothers) engage in less direct, one-on-one interaction with their children and assume less responsibility for their children's care and discipline regardless of mothers' employment status (see Hoffman, 1960; Lamb & Oppenheim, 1989). However, we also expected that the additive effect

of maternal and paternal discipline on behavior and peer status would be stronger than effects of maternal or paternal discipline alone. It was also expected that effects would be stronger for older versus younger preschool children due to longer exposure to the disciplinary pattern in the home. Further, relations were anticipated to be stronger for children of same sex parents due to sex role identification (e.g., Biller, 1981; Marshall, 1961).

We also investigated whether children's behavioral orientations mediated the relation between disciplinary styles and preschooler's peer status. If this "indirect-effects" model is successful, and the proper mediating variables (behavior) have been selected, no residual direct paths should remain that connect predictor (i.e., discipline) and criterion variables (i.e., peer status) in the analyses (see Biddle & Marlin, 1987; Hart et al., 1990; Pettit, Dodge, & Brown, 1988).

An alternative "independent effects" model was also examined. This model suggests that parents may coach, model, or condition prosocial or antisocial behavior (depending on disciplinary style used) and, in turn, foster peer acceptance or rejection when their children use such behavior in the peer group. Moreover, children's behavior may also be shaped to some degree by their perceptions of events in the peer group. Therefore, both disciplinary style and behavior may predict peer status, but for different reasons. Validation of the independent effects model would occur if children's behavior still predicts peer status after partialing out the effects of disciplinary style.

Method

Sample

The subjects were 106 preschool-age children attending five southern child care programs (age range = 40-71 months; median age = 54 months; SD = 8.20). Children (53 boys and 53 girls) and parents (both mothers and fathers) were predominantly white and middle to upper middle class as assessed by the Hollingshead Four Factor Index (Hollingshead, 1974). Socioeconomic status (SES) scores ranged from 32 to 66 (possible range of 8-66), with a median of 56 and a standard deviation of 8.05 (see Gottfried, 1985). Subjects for this investigation were part of a larger study of parenting involving 152 children (of a potential pool of 206) and their parents (Hart & DeWolf, in preparation). Only those children from the larger sample who had both parents participate were included in this investigation.

Procedure

Mothers and fathers were interviewed independently concerning disciplinary styles that they used by seven female graduate students

who were blind to study hypotheses. These interviewers were trained to follow a predefined interview format.[1] Five female observers were trained and recorded children's behavior during 20- to 35- minute free-play periods on the playground over a 4-6 week period. Sociometric testing was also conducted by five female examiners to assess children's peer status. All children involved in the study had been together in classrooms for at least three months prior to the beginning of the investigation.

Instruments

Disciplinary style interview. Mothers and fathers were asked in individual tape-recorded home interviews to respond to seven hypothetical situations describing disciplinary contexts. These interviews were later transcribed for coding purposes. Several of the situations employed were adapted from Applegate, Burke, Burleson, Delia, and Kline (1985), Bearison and Cassel (1975), and Hart et al. (1990). These situations described disciplinary contexts where their child (a) picked flowers in the next door neighbor's flower garden, (b) took a small item from a friend's house without asking for it, (c) refused to go to bed at bedtime on a school night, (d) refused to go to school on a particular day (e) grabbed a toy away from another child while playing together, (f) hurt the feelings of another child by name-calling, and (g) pushed another child to the ground who had accidently run into him or her.

Open-ended responses were elicited rather than having parents select predefined disciplinary responses from a checklist. This was done in order to avoid item desirability bias (see Burleson & Wilson, 1988). An extensive hierarchical coding scheme designed to capture varying shades or degrees of the power assertion-induction dichotomy was then used to quantify disciplinary style responses (see Applegate, et al., 1985; Hart et al., 1990).[2]

Inductively oriented responses (e.g., explaining consequences and providing rationales, eliciting probable consequences for misbehavior from the child, limit setting and following through, etc.) composed the upper end of the continuum and power-assertive oriented responses (e.g., punishing, coercing, rebuking, providing rules with little or no justification, etc.) composed the lower end. The hierarchical placement of these responses (e.g., those that included combinations of inductive and power-assertive components) were made within the framework of theoretical and empirical justifications (see Hoffman, 1982). Scores ranged from 1-6 for each situation. These were created by summing the highest-level strategy elicited for each of the seven situations (see Loevinger & Wessler, 1970). These scores were then summed across the seven situations.

Maternal disciplinary style scores ranged from 6 to 39, with a

mean of 23.90 and a standard deviation of 6.38. Paternal disciplinary style scores ranged from 6 to 36, with a mean of 21.80 and a standard deviation of 6.61. Cronbach's alphas for disciplinary style scores was .73 for mothers and .78 for fathers. Two trained coders reliably coded parental responses from the interview transcripts (Cohen's kappa = .85). Permissiveness scores were created separately by summing the number of responses across situations indicating that a child was allowed or condoned in his or her behavior. Cohen's Kappa (Cohen, 1960) for these scores was .82.

Playground behavioral observations. Children's playground behavioral orientations were assessed by a scan sampling scheme (see Ladd et al., 1987; Ladd et al., 1988). Subjects were observed in a predetermined random order that was changed daily, and a total of 85 scans per child was coded. Observers focused on the subject and coded his or her behavior (during each 1-2 second scan) into one of five interactive or five noninteractive categories. The interactive categories and abbreviated definitions were as follows: (a) social conversation--face-to-face talk; (b) cooperative play-- nondisruptive mutual activity with others; (c) argue--hostile talk; (d) rough play--boisterous, quasiagonistic activity; and (e) aggressive-- physical harm intended hostile acts. Data on children's noninteractive behaviors are not reported here since they are not central to this investigation (see Ladd et al., 1988).

Agreement between observers and the reliability judge for the observed behaviors (10-15% overlap of observations on a scan-by-scan basis) was estimated with Cohen's kappa (median kappa = .87; range = .81 to .96). Measures were created by summing the number of behaviors recorded for each child in each category.

Sociometric assessment. A picture board nomination measure was employed to assess children's peer status. First, a randomly ordered display of classmates' photographs was presented to children on a picture board. After children identified each picture, procedures outlined by Asher, Singleton, Tinsley, & Hymel (1979) were followed to obtain peer nominations. Children were asked to point to three preferred classmates ("someone you like to play with at school") and three disliked classmates ("someone you don't like to play with at school").

Procedures outlined by Coie, Dodge, and Coppotelli (1982), were then used to create a measure of social preference. First, separate positive and negative nomination measures were created by summing the "votes" children received for each criteria. These scores were then standardized by classrooms. The measure of social preference was created by subtracting each standardized negative nomination score from its positive counterpart. These scores were used as a measure of

peer status in subsequent analyses.

Results

Preliminary correlational analyses revealed that socioeconomic status was not related to discipline, behavioral orientation, or peer preference scores. Due to this and the homogeneity of the sample with regard to SES, Hollingshead scores were not controlled for in subsequent analyses.

Since cooperative play and social conversation are exemplars of prosocial behavior, the next set of analyses were conducted to assess whether these measures could be collapsed to limit the number of statistical tests. Likewise, arguing, aggression, and rough and tumble play are exemplars of antisocial, quasiagonistic activities. Correlations indicated that social conversation and cooperative play were negatively correlated with aggression (r's = -.32 and -.24, respectively), arguing (r's = -.22 and -.12, respectively) and rough and tumble play (r's = -.42 and - .16, respectively). Whereas social conversation and cooperative play correlated at .27, the average intercorrelation of aggression, arguing, and rough and tumble play was .42. It was determined that since these measures were not highly interrelated, they should be explored independently since they appeared to represent somewhat different constructs.

The third set of analyses explored relations between maternal/paternal discipline and permissiveness scores. As seen in Table 1, maternal and paternal discipline scores were moderately related for boys but not for girls. Whereas maternal permissiveness and paternal discipline was positively related for girls and not boys (i.e., mothers who were more permissive had husbands who were more inductive with their daughters), maternal discipline sores were negatively related to paternal permissiveness scores for girls (i.e., mothers who were more inductive had husbands who were more permissive with their daughters). No significant correlations were found between mother's permissive and discipline scores. The same was true for fathers.

The next set of analyses investigated relations both within and between predictors and criteria. As seen in Table 2, low to moderate correlations were obtained between measures of maternal/paternal discipline, behavioral orientations, and peer preference. Significant correlations were generally in expected directions. Maternal discipline was positively related to scores of peer preference, social conversation and cooperative play and negatively related to scores of arguing, aggression, and rough play. Though not consistently so, similar patterns of correlation emerged for fathers, except that father discipline was negatively related to peer preference for girls. Peer preference was

also positively related to indices of prosocial behavior and negatively related to aggression and rough play although not always significantly so. Maternal and paternal permissiveness scores were generally uncorrelated with behavioral orientation scores. However, maternal permissiveness was negatively correlated with daughter's peer preference. Maternal and paternal permissiveness scores were positively related to scores of aggression.

Predicting Behavioral Orientations and Peer Preference

A series of hierarchical regression analyses were conducted for each set of hypotheses regarding relations between parental disciplinary styles, behavioral orientations, and peer preference. Before analyses, a median split was performed on children's age yielding groups of older and younger preschoolers to explore main and interactive effects of age in subsequent regressions. To explore gender differences and to control for their effects on subsequent predictors, children's sex was always entered on the first step of the analysis. This was followed by age and parental discipline scores (or behavioral orientations depending on the hypothesis being tested in each of the following sections) which were entered into the equations in that order on separate steps to examine their separate and overall contributions.

Two- and three-way interactions among the predictors were explored by entering variables representing predictor interactions involving sex, age, and behavioral orientations (or parental discipline scores) on the last step of the equation (see Cohen & Cohen, 1983). Regressions were performed on each criterion with interaction terms of the same order (i.e., all two-way interactions) simultaneously entered on the final step of the analysis. This was done to reduce the number of predictors. The regression analyses reported in Tables 3-9 each yielded a significant overall F ($p < .001$) for the peer preference and behavioral orientation criteria. For the sake of clarity and brevity, only those individual predictors and interaction terms yielding significant increments in explained variance are reported. Results for each criterion (i.e., behavioral orientations and social preference scores), including incremental F values and tests of significance for each R^2 increment increase, are reported in Tables 3-9. Findings regarding permissive disciplinary styles will be reported separately later in the text due to the small number of findings.

As a matter of interest, in cases where significant interactions occurred in Tables 3-9, additional R^2 values are presented in the text for simple regressions conducted within sex and/or age groupings. In many instances, the overall magnitude of effects for interaction terms in Tables 3-9, though significant, appear quite small. However, much larger effects appear in many cases when simple regressions are conducted within the breakdown of the interaction term, thus giving a

better indication of the variance accounted for within various sex and/or age groupings.

Parental discipline and children's behavioral orientations. After controlling for sex and age, a significant proportion of the variance in children's social conversation, cooperative play, arguing, aggression, and rough and tumble play was attributable to maternal discipline (see Table 3). Thus, mothers who were more inductive had children who exhibited more social conversation and cooperative play and less arguing, aggression, and rough and tumble play. With the exception of arguing, significant interactions indicated that these relations were strongest for older children (R^2 = .23, .23, .30, and .29, respectively). Whereas the relation between maternal induction and social conversation was stronger for older boys (R^2 = .39), the relation involving maternal induction and cooperative play was stronger for older girls (R^2 = .40).

As seen also in Table 3, father discipline also accounted for a significant proportion of the variance in children's social conversation and rough and tumble play. Thus, fathers who were more inductive had children who were more involved in social conversation and less involved in rough and tumble play. Significant interactions involving sex also indicated that these relations were stronger for boys (R^2 = .35 and .25, respectively). Fathers who were more inductive also had boys who engaged in more cooperative play (R^2 = .15). With regard to significant discipline by age and discipline by sex by age interactions, results indicated that fathers who were more inductive had older children who exhibited more social conversation (R^2 = .22). Fathers who were less inductive (i.e., more power assertive) had older boys who engaged in more arguing behavior (R^2 = .21).

Parental discipline and peer status. Maternal discipline accounted for a small but significant proportion of the variance in peer preference (see Table 3). Mothers who were more inductive (i.e., less power assertive) had children who were more preferred as playmates by their peers. Significant interactions indicated that relations between induction and peer preference were strongest for older children (R^2 = .22).

For fathers, significant interactions indicated that paternal discipline accounted for a small but significant proportion of the variance in girls' peer preference. Fathers who were more inductive (i.e., less power assertive) had daughters who were less preferred (R^2 = .22).

Children's behavioral orientations and peer status. Social conversation, cooperative play, arguing, and aggression each made small but significant contributions to the prediction of peer preference (see Table 4). Thus, children who engaged in more prosocial and less agonistic behaviors were more preferred as playmates. With the

exception of cooperative play, significant interactions indicated that relations between these variables and peer preference were strongest for older children (R^2 = .19, .16, and .17, respectively). For rough and tumble play, significant interactions indicated that older children, and particularly older girls who engaged in more rough and tumble play were less preferred as playmates (R^2 = .13 and .18, respectively).

Relative contributions of parental discipline to behavioral orientations and peer status. To examine the relative contribution of maternal and paternal discipline, predictive relations between maternal discipline and children's behavioral orientations and peer status were examined by controlling for paternal discipline in the regression equation (see Table 5). As seen in Table 5, the same procedure was used controlling for maternal discipline in analyses exploring predictive relations between paternal discipline and children's behavioral orientations and peer status. Results indicated that maternal discipline accounted for a significant proportion of the variance in children's peer preference and behavioral orientation scores after removing variance attributable to father discipline. The same sex and age interactions emerged as were shown in Table 3.

As also seen in Table 5, girl's peer preference was still attributable to father discipline after controlling for maternal discipline. However, father discipline accounted for a significant proportion of the variance only in the scores of social conversation and rough and tumble play after removing variance attributable to maternal discipline. Similar to results shown in Table 3, fathers who were more inductive had boys and older children who engaged in more social conversation and less rough and tumble play. However, father discipline was no longer more strongly related to boy's rough and tumble play. Nor was it any longer significantly related to boy's cooperative play and older boy's arguing behavior.

Following procedures explained earlier, interactions involving maternal and paternal discipline were also assessed by entering variables representing these predictor interactions on the last step of the equation. As seen in Table 5, results indicated that girls of less inductive mothers (i.e., more power assertive) and more inductive fathers were less preferred as playmates (R^2 = .36).

Other findings indicate children of more inductive mothers and more inductive fathers also engaged in more social conversation and less rough and tumble play (see Table 5). Furthermore, mothers who were less inductive (i.e., more power assertive) who had more inductive husbands had children who engaged in less rough and tumble play. Significant mother discipline by father discipline by age interactions indicated that these relations were stronger for older children. Older children of more inductive mothers and more inductive fathers were

more preferred and engaged in more social conversation, more cooperative play, less arguing, less aggression, and less rough and tumble play. No other significant findings were obtained from the interaction terms. Four way predictor interactions involving father discipline, mother discipline, age, and sex were not interpreted due to loss of statistical power.

Testing the Indirect Effects Model

The path from parental discipline to behavioral orientations to peer status. The next analyses tested whether relations between the measures of parental discipline and children's peer status is mediated by children's behavioral orientations. As shown in Table 6, maternal discipline still contributed significantly to children's peer preference, even when behavioral orientation scores were entered into the regression equation first. As before (see Table 3), significant interactions indicated that relations between maternal discipline and peer preference were stronger for older children (R^2 = .29, .28, .26, and .24), controlling for social conversation, arguing, aggression, and rough and tumble, respectively. significant proportion of girl's peer preference scores were also still attributable to paternal discipline after the effects of behavioral orientations were removed (R^2 = .27, .33, .23, .25, .25, respectively).

Since results of prior analyses indicated that behavioral orientations of older children who had both more inductive mothers and more inductive fathers were related to both discipline and peer preference (see Table 5), similar analyses were conducted to see if behavioral orientations mediated the relationship between discipline and peer status for this sub-group of children. This analysis was also conducted for the maternal by paternal discipline by sex interaction predicting peer preference after controlling for aggression (see Table 5). As can be seen in Table 7, the interactive effects of maternal and paternal inductive discipline and age still forecasted peer preference after controlling for arguing, aggression, and rough and tumble play for older children. Additional findings indicated that the interactive effects of maternal and paternal discipline and sex still forecasted peer preference after partialling out the effects of aggression. However, the interaction of maternal and paternal inductive discipline and age did not contribute to peer preference after controlling for social conversation and cooperative play for older children.

This latter finding suggests that social conversation and cooperative play mediate the relation between the interactive effect of maternal and paternal induction on peer preference for older children. However, the residual paths connecting discipline and peer status after removing variation attributable to arguing, aggression, and rough and tumble play suggests that these antisocial, disruptive behavioral

orientations do not necessarily serve a mediating role between interactions of maternal and paternal induction and children's peer status (see Biddle & Marlin, 1987). Thus, relations between these behavioral orientations, discipline, and children's peer status may be accounted for by more direct paths of influence. The possibility still exists that discipline and these behavioral orientations make separate and independent contributions to peer status. This possibility was examined next.

Testing the Independent Effects Model

The path from behavioral orientations to discipline to peer status. The next analyses examined the degree to which behavioral orientations predicted peer status independent of discipline. As before, contributions of maternal and paternal discipline were examined separately and then the interactive effects of maternal and paternal induction were explored.

Results shown in Table 8 indicate that children's behavior predicted peer preference independent of maternal and paternal disciplinary styles examined separately. The same interactive effects shown in Table 4 also emerge here. The exception to this was that maternal discipline mediated the relation between social conversation and peer preference. These findings suggest that with the exception of social conversation, children's behavioral orientations make significant contributions to peer status independent of the separate effects of maternal and paternal discipline.

Since results in Table 7 indicated only social conversation and cooperative play mediated the relation between the interactive effect of maternal and paternal discipline on peer preference for older children, further analyses were conducted to see if arguing, aggression, and rough and tumble play predicted peer status independent of maternal and paternal disciplinary style interactions. As seen in Table 9, when the interactive effects of maternal and paternal discipline were controlled in the same analysis, arguing, aggression, and rough and tumble play still accounted for significant proportions of the variance in peer preference in ways similar to findings displayed in Table 4.[3]

In summary, these findings were generally supportive of the independent effects model, except for when the interactive effects of maternal and paternal discipline were taken into account for social conversation and cooperative play.

Effects of Permissiveness

Few significant findings emerged from regression analyses exploring contributions of maternal and paternal permissiveness to behavioral orientations and peer status. After controlling for sex and

age, a small but significant increment to prediction for peer preference was found for maternal permissiveness (R^2 change = .07), $F(1, 101) = 7.01$, $p < .01$. The overall R^2 for this analysis was .09 with a significant overall regression solution ($p < .01$). These findings indicate mothers who were more permissive had preschoolers who tended to be less preferred as playmates. However, maternal permissiveness was not related to child behavior.

Other findings indicated that paternal permissiveness accounted for small but significant proportions of variance in children's aggression (R^2 change = .04), $F(1, 101) = 4.38$, $p < .05$ and rough and tumble play (R^2 change = .05), $F(1, 101) = 4.02$), $p < .05$. The overall R^2 for these analyses was .11 and .16, respectively, with significant overall regression solutions ($p < .001$). These findings suggest that preschoolers of more permissive fathers had tendencies to engage in more rough and tumble play and to be more aggressive with their peers. However, they were not less preferred as playmates. No other analyses yielded significant results including those exploring interaction effects. Alternative paths of influence were not explored due to the fact that significant relations were not found between maternal permissiveness and behavioral orientations and between paternal permissiveness and peer preference.

Discussion

The present study was designed to shed light on maternal and paternal discipline factors that forecast children's playground behavioral orientations and peer status. We began with the hypothesis that more inductive and less power assertive maternal and paternal discipline would predict more prosocial and less aggressive and disruptive playground behavior. Results provided partial support for this hypothesis. Whereas findings indicated similar influences of maternal and paternal discipline on social conversation and rough and tumble play, differential findings generally qualified by sex and age emerged for mothers and fathers for cooperative play, arguing, and aggression.

Corroborating findings of past research (see Baumrind, 1967; Maccoby & Martin, 1983), children of more inductive mothers exhibited more cooperative play, social conversation, and less arguing, aggression, and rough and tumble play. As expected, these findings were generally stronger for older preschool children. In general, higher levels of paternal induction forecasted more social conversation (particularly for older children) and less rough and tumble play. However, only boy's cooperative play and older boy's lower frequencies of arguing were predicted by paternal induction. Aggression was unrelated to paternal discipline.

This pattern of findings suggests that whereas maternal discipline

influences broad aspects of prosocial and aggressive, disruptive behavior for both males and females, paternal discipline affects a narrower range of behavior for children of both sexes, specifically social conversation and more disruptive playground behaviors (i.e., rough and tumble play). Moreover, only males appear to be influenced by paternal discipline with regard to cooperative play and arguing. This finding is partially consistent with our expectations in that the sex role identification literature suggests sons identify more with their fathers in some developmental domains (see Biller, 1981; Mussen & Distler, 1960). In this case, it appears arguing and cooperative features of resolving interpersonal conflict reflected in paternal discipline has more salient influence on boy's behavior with peers.

Why then, does only maternal power assertion predict children's aggression with peers? Although this finding supports prior studies with mothers (e.g., Becker, et al., 1962; Sears et al., 1957; Maccoby & Martin, 1983), it contradicts previous findings indicating relations between paternal power assertion and aggression in boys (e.g., Eron, et al., 1963; Feshbach, 1974; Marshall. 1961). Perhaps this discrepancy is due, in part, to the fact that physically hostile aggression in the current study was observed separately from other disruptive or hostile behavioral constructs. Many earlier studies of the effects of paternal power assertion generally focused on peer and teacher perceptions or observations of aggression which combined argumentative and disruptive behavior with physical hostility. Our data suggests that whereas children who engage in more physically hostile aggressive behavior tend to have more power assertive mothers, argumentative behavior in boys and disruptive behavior in boys and girls is influenced by both paternal and maternal power assertive discipline.

As anticipated and consistent with past research (e.g., Hart et al., 1990), more power assertive mothers had children who were less accepted by peers. However, contrary to expectations, father discipline was not significantly related to peer status for boys (although correlations were in the positive direction). Moreover, more inductive fathers had daughters who were less accepted by peers. Although this finding can be partially explained by results indicating less accepted daughters had mothers who were more power assertive and fathers who are more inductive, more research is needed to clarify the nature of this relationship. One possible interpretation of this finding may be that husbands of more power assertive wives have tendencies to overcompensate inductively with their daughters. However, due to greater sex role identification with the mother, paternal induction may have little positive impact on the already negative relationship between maternal discipline and the daughter's competence with peers. Clearly, the present findings suggest complex patterns of relations may exist between maternal and paternal discipline and daughter's peer status.

Recent research findings regarding children's playground behavioral orientations and peer status were corroborated in the present study (see Ladd & Price, 1987; Ladd, et al., 1988; in press). Preschoolers who were more accepted by peers were more cooperative, engaged in more social conversation, and were less aggressive, argumentative, and disruptive. Older preschool children who engaged in rough and tumble play were less accepted by peers. This low acceptance by peers was particularly true for older girls who engaged in this type of behavior. This is likely due to perceived inappropriate sex role behavior by peers since boys are generally more active and disruptive when compared to girls (see Hartup, 1989).

Consistent findings from this study and others with preschoolers (see Ladd, et al, 1987; in press) are in contrast with other research involving grade- school- age children indicating rough and tumble play is associated with prosocial forms of play leading to games with rules and enhanced social problem solving skills with peers (cf., Pellegrini & Perlmutter, 1988; Smith & Boulton, 1987). One possible explanation may be due to developmental differences in that preschoolers tend to think of others in terms of concrete behavioral characteristics rather than in terms of more invisible psychological features (e.g., Burleson, 1983; Harter, 1982; Shantz, 1987). It is conceivable that this may lead them to misinterpret playful disruptive behavior as being more hostile in nature.

Partial support was obtained for our hypothesis that maternal discipline would have a more relative impact on children's behavior and peer status than paternal discipline. Indeed, maternal discipline forecasted peer preference and all aspects of behavior explored in the current investigation after removing the effects of paternal discipline. With the exception of daughter's peer status, social conversation, and rough and tumble play, father discipline did not impact on children's behavior or peer status independent of maternal discipline.

Do these findings suggest that mothers carry the weight of influence with their children? Yes and no. Yes, in that maternal discipline influences more aspects of behavior independent of paternal discipline and no, in that the additive and joint effects of maternal and paternal discipline carry greater weight than either alone. An examination of the magnitude of effect in the regressions indicated that in many cases, the additive effect of maternal and paternal discipline was stronger than the effects of maternal and paternal discipline alone. This appeared particularly true for social conversation and rough and tumble play. Moreover, when exploring joint interactive effects, our data suggest that children of more inductive mothers and more inductive fathers engage in more social conversation and less rough and tumble play. More inductive fathers also appear to offset the negative influence of maternal power assertion on children's rough and tumble play behavior since children of this combination of parenting exhibited less disruptive playground behavior. More research is needed to clarify the

exact processes that are involved in these types of relationships.

Most striking, with regard to joint interactive effects, were findings indicating older preschoolers of more inductive mothers and more inductive fathers were more accepted by peers and engaged in more prosocial and less hostile and disruptive playground behavior. Every dependent measure in this investigation was impacted by this parenting combination. Moreover, prosocial aspects of behavior (i.e., social conversation and cooperative play) were found to mediate the relation between more inductive parenting on the part of both parents and competence with peers for older preschoolers.

These findings are supportive of past research highlighting the positive impact of inductive discipline on children's behavior and competence with peers (see Baumrind, 1967; 1971; Maccoby & Martin, 1983). Further, our findings suggest that when induction impacts both behavior and subsequent peer status, it is practiced on the part of both mother and father. However, when effects of induction were examined independently for mothers and fathers, the hypothesized path of influence running from discipline to behavior to child competence with peers did not occur (with the exception of social conversation for mothers). Rather, more inductive parenting and prosocial behavior appeared to make separate and independent contributions to peer acceptance. Likewise, our data suggest that aggressive and disruptive behavior and more power assertive discipline (i.e., less inductive), whether explored separately or jointly for fathers and mothers, makes independent contributions to peer rejection (primarily in the case of mothers).

Why would this be so, particularly when parental discipline forecasts both behavior (prosocial, aggressive, and disruptive) and peer status? Although behavioral information may be gleaned from parents in disciplinary contexts, the enactment of behavior may be further modified by the peer group. For instance, children who are rejected by peers due to biased first impressions based on aggressive, disruptive behavior may respond to peers with more hostile behavior that serves to confirm peers' initial perceptions. Recent evidence suggests these perceptions tend not to change, regardless of any prosocial behaviors the rejected child might later exhibit (Hymel, Wagner, & Butler, in press). Thus, behavior modified to some degree by peers, as well as parental discipline may predict peer status, but for different reasons. However, this interpretation should be qualified by the fact that evidence indicating preschooler's early peer reputations affect their subsequent behavior toward peers is still not conclusive (see Ladd et al., 1988).

It is also conceivable that children acquire behavioral information not only from parents, but from television, modeled peer behavior, and other members of their social networks (e.g., grandparents, neighbors,

child care workers). This too, may account for the independent effects of parental discipline and behavior to peer status (see Cochran & Brassard, 1979). However, in reiteration, it appears that more induction on the part of both mother and father may override other independent effects and may facilitate a prosocial behavioral orientation in children that translates into a greater probability of subsequent acceptance by peers.

Findings pertaining to permissive parenting were relatively few but somewhat in accordance with past research (see Maccoby & Martin, 1983). Although maternal permissiveness was unrelated to child behavior, children of more permissive fathers were more aggressive and disruptive. Further, children of more permissive mothers were less accepted by peers. The limited number of findings regarding permissive parenting suggests that perhaps induction and power assertion have a more salient influence on children's behavioral orientations. Results of this study also provided descriptive information indicating that mothers and fathers tend to use similar types of discipline with sons but not daughters.

Finally, findings from the current study must be qualified by the assumed direction of effect. For instance, in contrast to the direction of effect assumed in this investigation, a child's hostile behavior may precede and evoke more power assertive strategies on the part of parents, which in turn could influence competence with peers (see Bell & Chapman, 1986). Future research should take into account a more complex model of child effects, parent effects, and attribution processes related to discipline that have been explored in recent research (see Dix, Ruble, & Zambarano, 1989). Also, a cautionary note should be sounded with regard to the generalizability of the current findings. In general, the magnitude of effects were small, although the statistically significant values were adequate to support the model being tested.

In summary, results from this study indicate that children glean behavioral orientations that impact upon their peer status, in part, from both mothers and fathers in disciplinary contexts. However, the nature of relations between parental discipline, behavior, and competence with peers is qualified not only by the sex and age of the preschool child, but by the combined effects of disciplinary styles that mothers and fathers use.

Note 1. A copy of the interview format will be provided by the first author on request.

Note 2. A detailed coding booklet will be provided by the first author on request.

Note 3. In testing the full model, we found that maternal and paternal discipline (and maternal and paternal discipline interactions) still predicted behavioral orientations after the removal of variance attributable to peer preference, indicating that contributions of parental discipline and peer preference to behavioral orientations are not somehow interchangeable or redundant.

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TABLE 1
Correlations Between Maternal and Paternal Disciplinary Styles

	MOTHER'S PERMISSIVENESS	FATHER'S DISCIPLINE	FATHER'S PERMISSIVENESS
Mother's Discipline			
Total Sample	-.04	.16*	-.16*
Male	-.18+	.40**	-.06
Female	.03	-.10	-.27*
Mother's Permissiveness			
Total Sample		.19*	.09
Male		-.02	.15
Female		.35**	.03
Father's Discipline			
Total Sample			-.14+
Male			-.09
Female			-.21+

\+ p<.10
* p<.05
** p<.01
*** p<.001

TABLE 2

CORRELATIONS BETWEEN MATERNAL/PATERNAL DISCIPLINARY STYLES, BEHAVIORAL ORIENTATIONS AND PEER STATUS: CONCURRENT RELATIONS

	PEER PREFERENCE	SOCIAL CONVERSATION	COOPERATIVE PLAY	ARGUING	AGGRESSION	ROUGH AND TUMBLE
Mother Discipline						
Total Sample	.29***	.27**	.26**	-.25**	-.27**	-.31***
Male	.37**	.34**	.04	-.18	-.17	-.32**
Female	.26*	.23*	.38**	-.31**	-.45***	-.39**
Mother Permissiveness						
Total Sample	-.26**	-.02	.01	.13+	.11	.07
Male	-.08	.06	.17	.05	-.03	-.03
Female	-.43***	-.08	-.06	.19+	.23*	.16
Father Discipline						
Total Sample	-.08	.34***	.12	-.15+	-.04	-.27**
Male	.21+	.53***	.34**	-.29*	-.10	-.50***
Female	-.46***	.13	-.03	-.01	.02	-.04
Father Permissiveness						
Total Sample	-.01	-.14+	-.10	.04	.18*	.06
Male	-.01	-.17	-.11	-.01	.16	-.00
Female	-.01	-.12	-.09	.09	.24*	.15
Peer Preference						
Total Sample		.21*	.31***	-.13+	-.21*	-.16+
Male		.25*	.33**	-.14	-.18	-.11
Female		.15	.34**	-.12	-.20+	-.16

+ p<.10
* p<.05
** p<.01
*** p<.001

TABLE 3
Regressions on Peer Preference and Behavioral Orientations*
with Maternal and Paternal Disciplinary Styles as Predictor

CRITERION	PEER PREFERENCE		SOCIAL CONVERSATION		COOPERATIVE PLAY		ARGUING		AGGRESSION		ROUGH AND TUMBLE	
PREDICTORS(Step)	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F
Mothers												
Sex	.01	...	.01	...	.00	...	.00	...	.07	8.07**	.08	9.11**
Age	.01	...	.12	12.32***	.02	...	.00	000	.07	...	.11	3.77+
Discipline	.11	10.90**	.21	11.33***	.09	7.56**	.06	6.84*	.16	11.05***	.22	14.64***
Discipline X Sex	...	...	...	...	.13	5.31*	...	...	...	...	...	...
Discipline X Age	.15	4.69*	.22	2.83+	.15	7.65**	...	...	.23	8.12**	.26	4.56*
Discipline X Sex X Age	...	...	.23	2.92+	.16	8.17**	...	...	...	...	...	...
Fathers												
Discipline	.02	...	.20	11.03***	.03	...	.02	...	.07	...	.20	11.00**
Discipline X Sex	.13	12.30***	.28	10.36**	.06	3.30+	...	...	...	...	.23	4.09**
Discipline X Age	...	...	.23	4.19*	...	...	...	...	...	...	...	...
Discipline X Sex X Age	...	...	...	...	...	...	.06	4.20*	...	...	...	...

NOTE.-df's for tests on R^2 increments were 1,102 for the peer preference and behavioral orientation criteria. Separate analyses for maternal and paternal discipline are collapsed into this table.

\+ p<.10
* p<.05
** p<.01
*** p<.001

TABLE 4

REGRESSION ON PEER PREFERENCE WITH INTERACTIVE BEHAVIORAL ORIENTATIONS AS PREDICTORS

Criterion/Predictors(Steps)	R^2 Incremental	F
Peer Preference:		
Sex	.01	...
Age	.02	...
Social Conversation	.07	6.37**
Social Conversation X Age	.12	5.48*
Cooperative Play	.13	12.71***
Arguing	.03	...
Arguing X Age	.13	11.11**
Arguing X Sex X Age	.09	6.70*
Aggression	.05	3.68+
Aggression X Age	.11	6.86**
Aggression X Sex X Age	.12	7.54**
Rough and Tumble	.03	...
Rough and Tumble X Age	.10	7.05**
Rough and Tumble X Sex X Age	.10	7.35**

NOTE:-df's for tests on R^2 increments were 1,102 for peer preference criterion. Separate analyses for each behavioral orientation are collapsed into this table.

+p<.10
*p<.05
**p<.01
***p<.001

TABLE 5

REGRESSIONS ON PEER PREFERENCE AND BEHAVIORAL ORIENTATIONS CONTROLLING FOR MATERNAL AND PATERNAL DISCIPLINE AND ASSESSING MATERNAL/PATERNAL DISCIPLINARY STYLE INTERACTIONS

CRITERION	PEER PREFERENCE		SOCIAL CONVERSATION		COOPERATIVE PLAY		ARGUING		AGGRESSION		ROUGH AND TUMBLE	
PREDICTORS (Step)	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F	INCREMENTAL R^2	F
Mothers												
Sex	.01	...	.01	...	.00	...	.00	...	.07	8.07**	.08	9.11**
Age	.01	...	.12	12.32***	.02	...	.00	...	.07	...	.11	3.77+
FDisc	.02	...	.20	11.03***	.03	...	.02	...	.07	...	.20	11.00**
MDisc	.12	12.13***	.23	8.94**	.09	6.82**	.08	5.80*	.16	10.76**	.28	11.99***
MDisc X Sex	...	...	...	...	.15	6.60**	...	...	...	...	...	...
MDisc X Age	.16	3.79*	.31	5.77*	.16	8.71**	...	...	.23	8.29**	.34	8.40**
MDisc X Sex X Age	...	...	.29	3.34+	.16	8.20**	...	...	...	...	...	...
Fathers												
MDisc	.11	10.93***	.21	11.33***	.09	7.56**	.06	6.84**	.16	11.05***	.22	14.64***
FDisc	.12	...	.27	8.64**	.09	...	.08	...	.16	...	.28	8.47**
FDisc X Sex	.19	8.22**	.31	6.81**	...	...	...	...	...	...	...	...
FDisc X Age	...	...	.31	6.91**	...	...	...	...	...	...	...	...
FDisc X Sex X Age	...	...	...	...	...	...	...	...	...	...	...	...
Mothers X Fathers												
FDisc X MDisc	...	...	.31	5.94***	...	...	...	...	...	...	.34	8.62**
FDisc X MDisc X Sex	.17	5.09*	...	...	...	...	...	...	.19	3.01+	...	...
FDisc X MDisc X Age	.16	4.93*	.35	13.30***	.15	6.67**	.10	3.12+	.23	8.03**	.36	11.93***

NOTE.-df's for tests on R^2 increments were 1,101 for the peer preference and interactive behavioral orientation criteria. FDisc = Father's Discipline; MDisc = Mother's Discipline. Separate analyses for maternal and paternal discipline are collapsed into this table.

\+ p<.10
* p<.05
** p<.01
*** p<.001

TABLE 6
REGRESSIONS ON PEER PREFERENCE
(CONTROLLING FOR BEHAVIORAL ORIENTATIONS)

	MOTHERS		FATHERS	
	R^2	Incremental F	R^2	Incremental F
Peer Preference:				
Sex	.01	...	.01	...
Age	.02	...	.02	...
Social Conversation	.07	6.37**	.07	6.37**
Discipline	.14	7.18**	.10	2.73+
Discipline X Sex	...	...	.16	7.84**
Discipline X Age	.16	3.45+	...	...
Cooperative Play	.13	12.71***	.13	12.71***
Discipline	.18	6.66**	.14	...
Discipline X Sex	.20	3.14+	.21	9.40**
Arguing	.03	...	.03	...
Discipline	.12	9.42**	.04	...
Discipline X Sex	...	...	.14	11.26***
Discipline X Age	.15	4.10*	...	...
Aggression	.05	3.68+	.05	3.68+
Discipline	.12	8.17**	.06	...
Discipline X Sex	...	...	.16	11.94***
Discipline X Age	.15	3.55+	...	...
Rough and Tumble	.03	...	.03	...
Discipline	.11	9.32**	.05	...
Discipline X Sex	...	...	.14	10.72**
Discipline X Age	.15	4.41*	...	...

NOTE.-df's for tests on R^2 increments were 1,101 for the peer preference criterion. Separate analyses for each behavioral orientation are collapsed into this table.

+ p<.10
* p<.05
** p<.01
*** p<.001

TABLE 7

REGRESSIONS ON PEER PREFERENCE CONTROLLING FOR BEHAVIORAL ORIENTATIONS WITH INTERACTIVE EFFECTS OF MATERNAL AND PATERNAL DISCIPLINE AS PREDICTORS

	R^2	Incremental F
Pref:		
Sex	.01	...
Age	.02	...
Social Conversation	.07	6.37*
MDisc	.14	7.18**
FDisc	.17	3.55+
FDisc X MDisc	...	...
FDisc X MDisc X Age	...	...
Pref:		
Cooperative Play	.13	12.71***
MDisc	.18	6.66*
FDisc	.20	...
FDisc X MDisc	...	...
FDisc X MDisc X Age	...	...
Pref:		
Arguing	.03	...
MDisc	.12	9.42**
FDisc	.13	...
FDisc X MDisc	...	...
FDisc X MDisc X Age	.17	4.31*
Pref:		
Aggression	.05	3.68+
MDisc	.12	8.17**
FDisc	.14	...
FDisc X MDisc	...	...
FDisc X MDisc X Age	.17	3.93*
FDisc X MDisc X Sex	.19	5.83*
Pref:		
Rough and Tumble	.03	...
MDisc	.11	9.32**
FDisc	.13	...
FDisc X MDisc	...	...
FDisc X MDisc X Age	.17	4.47*

Note.-df's for tests on R^2 increments were 1,100 for the peer preference criterion. FDisc = Father's Discipline; MDisc = Mother's Discipline. Separate analyses controlling for each behavioral orientation are collapsed into this table.

+p<.10
*p<.05
**p<.01
***p<.001

TABLE 8
REGRESSIONS ON PEER PREFERENCE CONTROLLING FOR MATERNAL AND PATERNAL DISCIPLINE

	Mothers		Fathers	
	R^2	Incremental F	R^2	Incremental F
Peer Preference				
Sex	.01	...	.01	...
Age	.02	...	.02	...
Discipline	.11	11.13***	.02	...
Social Conversation	.14	...	.10	8.61***
Social Conversation X Age	.17	...	.15	6.59**
Discipline	.11	11.13***	.02	...
Cooperative Play	.18	8.16**	.14	13.44***
Discipline	.11	11.13***	.02	...
Arguing	.12	...	.04	...
Arguing X Age	.19	8.85**	.14	11.47***
Arguing X Sex X Age	.16	4.69**	.10	6.13*
Discipline	.11	11.13***	.02	...
Agression	.12	...	.06	3.80+
Aggression X Age	.15	3.70+	.12	7.52**
Aggression X Sex X Age	.15	3.67+	.12	7.21**
Discipline	.11	11.13***	.02	...
Rough and Tumble	.11	...	.05	...
Rough and Tumble X Age	.15	4.52*	.12	8.13**
Rough and Tumble X Sex X Age	.15	4.03*	.10	6.59*

Note.-df's for tests on R^2 increments were 1,101 for the peer preference criterion. Separate analyses for each behavioral orientation are collapsed into this table.

+p<.10
*p<.05
**p<.01
***p<.001

TABLE 9

REGRESSIONS ON PEER PREFERENCE CONTROLLING FOR INTERACTIVE EFFECTS OF MATERNAL AND PATERNAL DISCIPLINE

	R^2	Incremental F
Peer Preference:		
Sex	.01	...
Age	.02	...
Father Discipline	.02	...
Mother Discipline	.12	12.13***
Father Discipline X Mother Discipline	...	...
Arguing	.13	...
Arguing X Age	.21	9.31**
Arguing X Sex X Age	.17	3.98**
Aggression	.14	...
Aggression X Age	.17	4.29*
Aggression X Sex X Age	.16	3.32+
Rough and Tumble	.13	...
Rough and Tumble X Age	.18	5.58*
Rough and Tumble X Sex X Age	.16	3.39+

Note.-df's for tests on R^2 increments were 1,101 for the peer preference criteria. Separate analyses for each behavioral orientation are collapsed into this table.

+p<.10
*p<.05
**p<.01
***p<.001